

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

Fluge & Omdal Patent AS  
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## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL PRELIMINARY  
EXAMINING AUTHORITY

(PCT Rule 66)

12.05.2005  
First part. 2nd

Date of mailing  
(day/month/year)

**10-05-2005**

Applicant's or agent's file reference

IP20041228MC

REPLY DUE

within 60 days from  
the above date of mailing

International application No.

PCT/NO2004/000146

International filing date (day/month/year)

14.05.2004

Priority date (day/month/year)

15.05.2003

International Patent Classification (IPC) or both national classification and IPC

E21B 19/06

Applicant

Mechlift AS et al

1. ☒ The written opinion established by the International Searching Authority:  
☒ is ☐ is not  
considered to be a written opinion of the International Preliminary Examining Authority.
2. This second (first, etc.) opinion contains indications relating to the following items:
  - ☒ Box No. I Basis of the opinion
  - ☐ Box No. II Priority
  - ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
  - ☒ Box No. IV Lack of unity of invention
  - ☒ Box No. V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
  - ☐ Box No. VI Certain documents cited
  - ☒ Box No. VII Certain defects in the international application
  - ☐ Box No. VIII Certain observations on the international application
3. The applicant is hereby invited to reply to this opinion.

When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(e).

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4bis. For an informal communication with the examiner, see Rule 66.6. For an additional opportunity to submit amendments, see Rule 66.4.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.
4. The final date by which the international preliminary report on patentability (Chapter II of the PCT) must be established according to Rule 69.2 is: 15.09.2005

Name and mailing address of the IPEA/SE

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WRITTEN OPINION OF THE  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

International application No.

PCT/NO2004/000146

Box No. I Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion is based on a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:

- ☐ international search (under Rules 12.3 and 23.1(b))  
☐ publication of the international application (under Rule 12.4)  
☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this opinion has been established on the basis of (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed."):

☐ the international application as originally filed/furnished

☒ the description: \_\_\_\_\_ as originally filed/furnished  
pages 1-37

pages \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
pages \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☒ the claims: \_\_\_\_\_ as originally filed/furnished  
pages \_\_\_\_\_

pages \_\_\_\_\_ as amended (together with any statement) under Article 19  
pages 38-60 received by this Authority on 17.01.2005  
pages \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☒ the drawings: \_\_\_\_\_ as originally filed/furnished  
pages \_\_\_\_\_ received by this Authority on 17.01.2005  
pages 1-26 received by this Authority on \_\_\_\_\_  
pages \_\_\_\_\_

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages \_\_\_\_\_  
☐ the claims, Nos. \_\_\_\_\_  
☐ the drawings, sheets/figs \_\_\_\_\_  
☐ the sequence listing (specify): \_\_\_\_\_  
☐ any table(s) related to the sequence listing (specify): \_\_\_\_\_

4. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages \_\_\_\_\_  
☐ the claims, Nos. \_\_\_\_\_  
☐ the drawings, sheets/figs \_\_\_\_\_  
☐ the sequence listing (specify): \_\_\_\_\_  
☐ any table(s) related to the sequence listing (specify): \_\_\_\_\_

WRITTEN OPINION OF THE  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

International application No.

PCT/NO2004/000146

Box No. IV Lack of unity of invention

1. ☐ In response to the invitation (Form PCT/IPEA/405) to restrict or pay additional fees the applicant has:
- ☐ restricted the claims
  - ☐ paid additional fees
  - ☐ paid additional fees under protest
  - ☐ neither restricted nor paid additional fees

2. ☒ This Authority found that the requirement of unity of invention is not complied with for the following reasons and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees:

Two groups of inventions were identified:

I: Claims 1-68 and 77-87

II: Claims 69-76

Invention I relates to a lifting tool for handling of a pipe string, wherein the lifting part (20) is pivotable about a horizontal axis and arranged for grasping a pipe section (3,4) from a generally horizontal or nearly horizontal position; and a method for lifting of pipe sections, incorporating the step that the lifting part (20) of the lifting tool is rotated about a generally horizontal axis in an elevator apparatus (70), from a generally vertical initial position to an engagement position with the pipe section (3,4) which is arranged in a generally horizontal or nearly horizontal position.

Invention II relates to a lifting system for lifting or lowering pipe length (3, 4) and a pipe-string (2), wherein the lifting tool and the connection part (5) of the lifting tool are arranged for application or circulation of drilling fluids, drilling mud, cement or other fluid or fluid mix to the bore hole or well (160).

In group I (independent claims 1, 35, 51 and 77), nothing is mentioned about the circulation of drilling fluids.

.../...

3. Consequently, this opinion has been established in respect of the following parts of the international application:

- ☒ all parts
- ☐ the parts relating to claims Nos. \_\_\_\_\_

WRITTEN OPINION OF THE  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

International application No.

PCT/NO2004/000146

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.  
Continuation of: BOX IV

In group II (independent claim 69), nothing is mentioned about the lifting part (20) being pivotable about a horizontal axis.

There seems to be no technical relationship among the two identified inventions involving one or more of the same or corresponding special technical features (PCT Rule 13.2).

Consequently, the requirement of unity of invention is not considered to be fulfilled.

One way to amend the claims so as to make the application relate to one invention only or to a group of inventions so linked as to form a single general inventive concept could be to include in claims 69-76 the feature of the lifting part being pivotable about a horizontal axis.

The invention seems to relate to at least two problems; the problem of handling pipe strings between a horizontal position to a vertical position and the problem of resuming mud circulation very early during joining of a new pipe section.

It is considered that a careful reformulation of the claims, e.g. so as to include the solution to at least one of these problems, would render the claims to be in compliance with the requirement of unity. Therefore, the International Preliminary Examining Authority chooses not to invite the applicant pay additional fees.

WRITTEN OPINION OF THE  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

International application No.

PCT/NO2004/000146

Box No. V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

1. Statement

Novelty (N)

Claims 1-87

Claims

Inventive step (IS)

Claims 1-87

Claims

Industrial applicability (IA)

Claims 1-87

Claims

2. Citations and explanations:

Documents cited in the International Search Report:

D1: US3278220 A  
D2: US3265431 A  
D3: EP1099824 A2  
D4: WO9911902 A1  
D5: US3857450 A

In view of the amended claims, the cited documents represent the general state of the art.  
The invention defined in claims 1-87 is not disclosed by any of these documents.

The cited prior art does not give any indication that would lead a person skilled in the art to the claimed lifting tool and system for handling pipe-strings and pipe sections or to the claimed method for lifting pipe-sections. Therefore, the claimed invention is not obvious to a person skilled in the art.

Accordingly, the invention defined in claims 1- 87 is novel and is considered to involve an inventive step.

The invention is industrially applicable.

However, applicant's attention is drawn to Box IV, regarding unity of invention and to Box VII, regarding certain defects in the application.

**WRITTEN OPINION OF THE  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY**

International application No.

PCT/NO2004/000146

**Box No. VII Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

The drawings (most notably figures 1a, 2a, 2b, 4a) are not considered so as to admit direct reproduction (c.f. PCT Rule 11.2). The drawings include large heavy black areas making it difficult to distinguish any features.

The figures 15-17 contain text matter, which is not allowed, except for single word or word when absolute indispensable (PCT Rule 11.11). In this application, it does not seem absolute indispensable that the drawings contain text matter. Therefore, the figures 15-17 need to be amended.



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Vår ref./Our ref.  
IP20041228MC

Deres ref./Your ref.  
PCT/NO2004/000146

Dato/Date  
01.07.2005

Søknadsnr./Application No.      Oppfinnelsens tittel/Title of the invention  
PCT/NO2004/000146      INTERNAL RUNNING ELEVATOR

INTERNATIONAL PATENT APPLICATION NO. PCT/NO2004/000146  
MECHLIFT AS  
REPLY TO WRITTEN OPINION OF 10 MAY 2005 ISSUED BY THE INTERNATIONAL  
PRELIMINARY AUTHORITY (IPEA)

Dear Sirs:

Reference is made to Written Opinion dated 10 May 2005. In reply thereto, please find enclosed amended claims and amended drawings. The support in the PCT regulations for filing such amended claims and amended drawings is found in PCT Article 34(a) and (d), Rule 66.1(b), Rule 66.2(b)-66.2(d).

Regarding the issues regarding the drawings indicated in Box No. VII, please find enclosed an amended set of drawings. The circumstances in this case is that the present owner of the applicant Mechlift AS acquired the company quite recently. In the process of preparing a reply to the previous Written Opinion of 17 November 2004, the present owner informed our office that the original drawings are unavailable. The original drawings of the applicant which were stored on a computer which the new owner discovered were infected by computer viruses. The new owner has not succeeded to obtain the original drawings in electronic format. Thus, the best available drawings to our knowledge are pdf files stored on computers at our office.

All existing drawings have been replaced by these files, which have been amended according to the issues indicated box VII in the Written Opinion and reference numerals have been inserted. To be more specific, figs. 1a, 2a, 2b, 4a, 15, 16 and 17 have been amended. Black areas on figs. 1a, 2a, 2b, and 4a have been amended. Text on figs. 15-17 have been removed. In addition to what was indicated in box VII in the Written Opinion, amendments have been made to a detail view of the lifting tool on the right side of fig. 8a. We now ask that the IPEA accept the amended set of drawings, as the enclosed amended drawings are the best available.

The independent claims have been amended so as to include the feature of the lifting part being pivotable about a horizontal or generally horizontal axis. The other feature of the invention mentioned in box IV, relating to application or circulation of drilling fluids, drilling mud, cement or other fluid or fluid mixture, have been retained in the set of claims.

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The claims filed with our reply dated 17.01.2005, to Written Opinion of 17 November 2004, have been amended as follows:

Claims 1-68 is retained in their present form, except that the word "pipe length" have been replaced by the more correct translation "pipe section" and minor misprints have been amended.

Claim 69 have been amended by including the feature of claim 71,

...the lifting part (20) of the lifting tool is arranged for rotation about a horizontal or generally horizontal axis in the elevator apparatus (70), to grasp an end of a generally horizontal or nearly horizontal laying pipe length (3,4), and to be engaged against the inner surface, the outer surface or both the inner and outer surface of one end of the pipe section (3,4).

into the characterizing clause of claim 69, and by moving the feature of mud circulation (last feature of claim 69),

...the lifting tool and the connection part (5) of the lifting tool are arranged for application or circulation of drilling fluids, drilling mud, cement or other fluid or fluid mix to the bore hole or well (160).

so as to form amended claim 71. Further, the language in this last feature have been amended for language reasons, within the scope of the invention, from

"...the lifting part (20) of the lifting tool is **arranged for rotation** about a horizontal or generally horizontal axis in the elevator apparatus (70), **to grasp an end of a generally horizontal or nearly horizontal laying pipe length (3,4)**, and to be engaged against the inner surface, the outer surface or both the inner and outer surface of one end of the pipe section (3,4)."

into

"...the lifting part (20) of the lifting tool is **arranged for being pivotable** about a horizontal or generally horizontal axis in the elevator apparatus (70), **so as to grasp an end of a pipe section (3,4) arranged in a generally horizontal or nearly horizontal position**, and be engaged against the inner surface, the outer surface or both the inner and outer surface of one end of the pipe section (3,4)."

The bold typing represents amended parts of the claim.

We believe that all concerns of the IPEA regarding unity of invention and amendment of drawings now have been adressed. Thus, we ask that the IPEA accept the enclosed set of claims and the enclosed set of drawings, so that an International Report on Patentability may be established.

Yours faithfully,  
Fluge & Omdal Patent AS

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